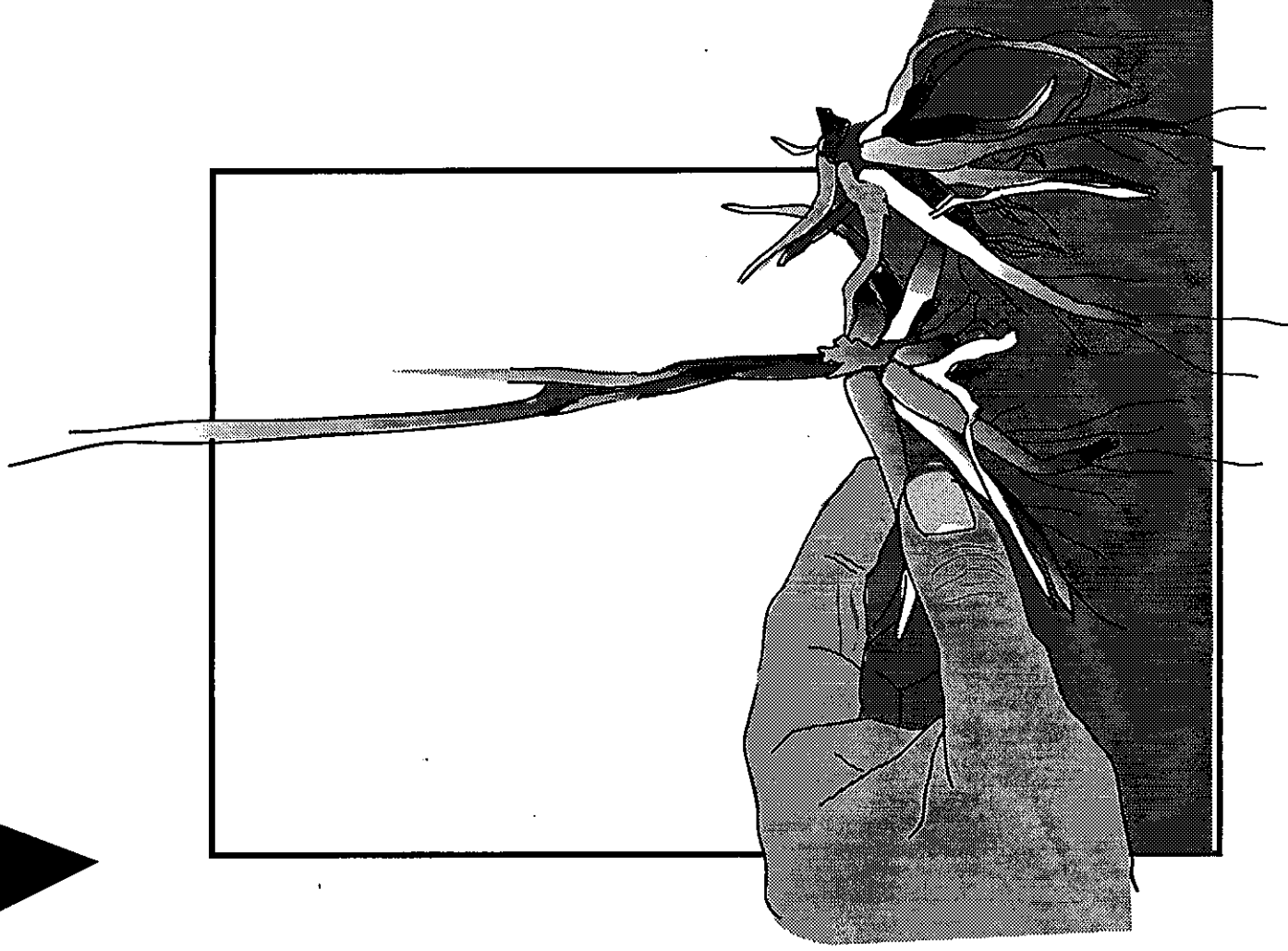


ACTIVITY 8

ROOTS



Key Ideas

The two main functions of the root are:

- to absorb water and minerals
- to anchor the plant firmly in the ground.

Eating root foods is healthy because they store minerals.
We need these minerals to stay healthy.

Work Requirements

Students will:

- discuss the function of the root system
- draw and label a diagram showing how roots function
- investigate the advantage of eating certain roots
- identify bush foods that are roots.

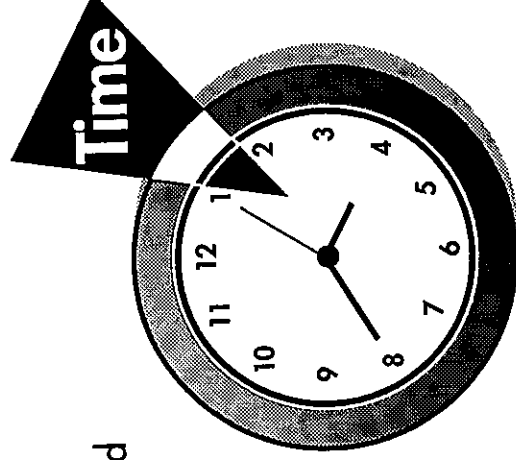
Teacher Preparation

Find a couple of plants with the roots still attached.

Collect some root foods, such as carrots, onions, radishes, yams, water lilies.

Materials

root foods
seeds
cotton wool
water
container
plant with roots still attached
Information Sheet 5
Task Card 3



1 hour

half of this activity will need to be done on one day and half on the following day.

Student Tasks

FOCUS

Class: Look closely at the plant with the roots attached.
Look at the examples of root vegetables.
Do they look like roots?
Why do you think the roots grow down and spread underground?

INVESTIGATE

Small groups: Do Task Card 3 about the root system.

PROCESS DATA

Individual: Draw and label a picture to show what happened in Task Card 3.

EVALUATE

Discussion: What do you think the function of roots is?
Read Information Sheet 5 to help you.
What would happen if plants did not have roots?
Can you think of any plants that do not have roots?

USE SCIENCE

Small groups: Make a list of the roots that you eat.
Include any bush foods.
Make a class chart with labelled instructions.

ACT RESPONSIBLY

Discussion: Why is it good to eat root vegetables?

Vocabulary

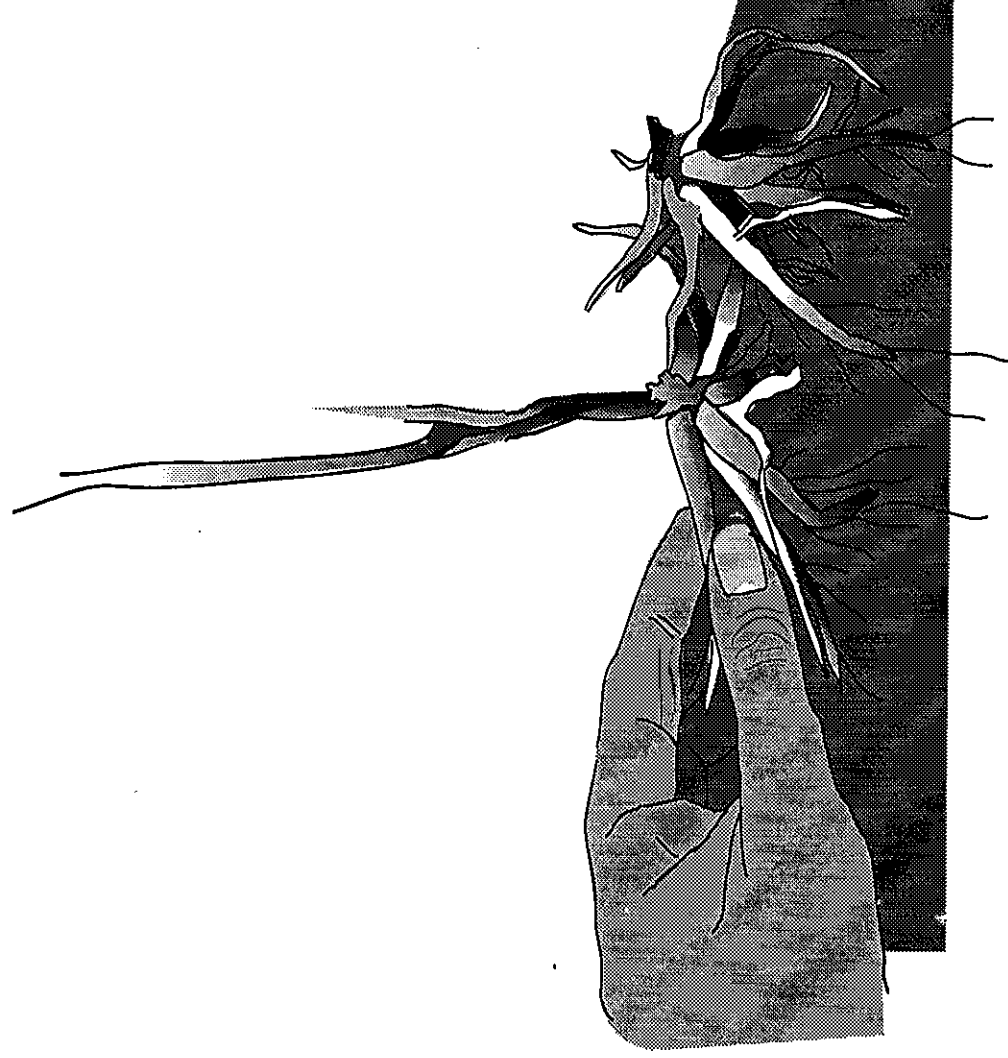
roots
root hairs
anchor
soil
minerals
absorb
store
carrot
potato
onion
yams
anchor
regrowth

CULTURAL CONSIDERATIONS • • • • •

When picking yams often the stem is put back into the ground for regrowth.

Some small yams are used to treat colds.

Information Sheet 5



The Function of Roots

The roots of the plant have two main functions:

- Plants need minerals from the soil to stay healthy. The roots of a plant grow down and spread underground in the soil. When it rains the water soaks through the soil and mixes with the minerals in it. The roots absorb the water and minerals and carry them to the plant.

Some roots, such as carrots and potatoes store food in them.
- The roots anchor the plant in the ground. They stop the wind from blowing the plant away and they stop the rain from washing the plant away.



THE ROOT SYSTEM

What You Need

carrot
jar
water
red food colouring or beetroot juice

What You Do

1. Put some water in the jar.
2. Colour the water until it is dark red.
3. Cut about 2 cm off the narrow end of the carrot.
4. Put the carrot, cut end down in the jar.
5. Leave the carrot for one day.
6. Take the carrot out of the water and cut another 5 cm off it.
Which part of the carrot is coloured red?
7. Cut the carrot in half lengthways.
Can you tell which part of the root carries water and minerals to the plant?